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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/315,334	05/20/1999	MICHAEL E. D. WINSER	40062.12US01	6400

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EXAMINER

QUELER, ADAM M

ART UNIT	PAPER NUMBER
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2178

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DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/315,334

Applicant(s)

WINSER, MICHAEL E. D.

Examiner

Adam M Queler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: Amendment A filed 4/29/2003.
2. Claims 1-33 are pending in the case. Claims 1, 5, 14, 19, 24, 25, and 29 are independent claims.
3. The objections to the claims are withdrawn in view of the Applicant's amendment and remarks.
4. The rejection of the claims 4, 17, and 33, under 35 U.S.C 112 have been overcome in view of the Applicant's remarks.
5. The rejection of claim 24 under 35 U.S.C 101 has been overcome in view of the Applicant's amendment.
6. Claim 5 is newly rejected as **necessitated by amendment**. The rest of the claims **remain** rejected in view of the previously cited art.

Drawings

7. The reply to the Office Action contained no proposed drawing correction as stated on page 4.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1-4, 19, 23 and 25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. (USPN 5276607—published on 1/4/1994), herein referred to as Harris, in**

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view of Dynamic HTML: Master the Essentials by Joseph Schmuller, © 1998, Chapter 7, found at “http://library.books24x7.com/book/id_208/viewer.asp?pr=1” herein referred to as Schmuller.

Regarding independent claim 1, Harris discloses a first object that is a scalar and a second object that is a function of the first (col. 4, ll. 50-59). Harris does not explicitly disclose properties being executed in a browser. Schmuller discloses code executed in browser that changes functions based on changes in a static property (pp.1-3, “pPositionTop” for example on the bottom of page 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmuller into Harris, as it would have provided a method of animating a web page (Schmuller, p. 1).

Regarding dependent claims 2 and 3, Harris discloses changing the second property in response to a change in the first (col. 2, ll. 61-69).

Regarding dependent claim 4, Harris is silent as to a user interface. Schmuller discloses HTML code forming a user interface that changes upon expressions changing that are dependent on static values (pp.1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmuller into Harris, as it would have provided a method of animating a web page (Schmuller, p. 1).

Regarding independent claim 19, Harris discloses a dependent/dependency relationship between scalar properties and expressions that allows the expressions to be recalculated (col. 1, ll. 20-25). Inherently the code must be analyzed to determine where scalar properties and expressions are. Harris discloses executing an expression dependent on a scalar property upon notification of a change in that property (col. 2, ll. 61-69). Harris does not explicitly disclose

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properties being executed in a browser. Schmuller discloses code executed in browser that changes calls functions based on changes in a static property (pp.1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmuller into Harris, as it would have provided a method of animating a web page (Schmuller, p. 1). It would have been further obvious to include a processor, a peripheral in data communication with the processor, and memory storing a browser, as these were all well-known components of a computer system.

Regarding dependent claim 23, while references are silent as to a monitor, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a monitor for display of the HTML document, as it was a well-known peripheral for computers, for the purpose of displaying data.

Regarding independent claim 25, Harris discloses a first object that is a scalar and a second object that is a function of the first (col. 4, ll. 50-59). Harris discloses mapping a dependent/dependency relationship (col. 1, ll. 20-25). Harris discloses changing the second property in response to a change in the first (col. 2, ll. 61-69). Harris is silent as to having a script engine. Schmuller discloses executing the code in a browser which displays would the document, which has a dynamic property (p.1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmuller into Harris, as it would have provided a method of animating a web page (Schmuller, p. 1).

10. Claims 5-18, 20-22, and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris in view of Garman (USPN 5926822—filed on 9/6/1996), and further in view of Schmuller.

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Regarding independent claim 5, Harris discloses a first object that is a scalar and a second object that is a function of the first (col. 4, ll. 50-59). Harris also discloses a dependent/dependency relationship between scalar properties and expressions that allows the expressions to be recalculated (col. 1, ll. 20-25). Harris is silent as to using nodal structure with pointers. Gorman discloses a tree for doing such recalculations (col. 9, ll. 3-5). Trees were well known to contain nodes linked with pointers in memory. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Gorman into Harris in order to use tree-based structures instead of list based data structures. Neither Harris nor Garman teach a markup expression. Schmuller teaches writing expressions in a markup language (p.1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmuller into Harris and Garman, as it would have provided a method of animating a web page (Schmuller, p. 1).

Regarding dependent claim 6, neither Harris nor Garman teach forming the data structure with a browser. Schmuller teaches writing expressions in a markup language (p.1). It would have been obvious to have a browser create the data structure, since the browser would have been processing the HTML. It would have been further obvious to combine Schmuller into Harris and Garman to provide a manner of dynamically changing a web page.

Regarding dependent claim 7, Schmuller discloses the markup language is HTML (p.1).

Regarding dependent claim 8, Garman discloses a structure that maps two scalar properties to a single expression (Table 3). It would have been obvious to one of ordinary skill in the art at the time of the invention use pointers as they were an equivalent structure for mapping dependencies.

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Regarding dependent claim 9, Garman discloses a structure that maps one scalar property to two expressions (Table 3). It would have been obvious to one of ordinary skill in the art at the time of the invention use pointers as they were an equivalent structure for mapping dependencies.

Regarding dependent claim 10, Garman discloses a structure that maps an expression to a two expressions (Table 3). It would have been obvious to one of ordinary skill in the art at the time of the invention use pointers as they were an equivalent structure for mapping dependencies.

Regarding dependent claim 11, Garman discloses a structure that maps dependent/dependency relationships (Table 3). It would have been obvious to one of ordinary skill in the art at the time of the invention use pointers as they were an equivalent structure for mapping dependencies.

Regarding dependent claim 12, Harris teaches expressions can have any number of dependencies (col. 1, ll. 56-64), which includes have an expression dependent on an expression dependent on a scalar. Harris also teaches recalculating in an order such that dependent expressions will not be recalculated until its dependent expressions are recalculated first (col. 1, ll. 26-32).

Regarding dependent claim 13, Harris teaches expressions can have any number of dependencies (col. 1, ll. 56-64), which includes have an expression dependent on an expression dependent on a scalar, and a third expression. Harris also teaches recalculating in an order such that dependent expressions will not be recalculated until its dependent expressions are recalculated first (col. 1, ll. 26-32).

Regarding independent claim 14, Harris discloses a first object that is a scalar and a second object that is a function of the first (col. 4, ll. 50-59). Harris does provide a method of mapping

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dependencies (col. 1, ll. 20-25), but does not explicitly disclose a dependency graph. Garman teaches using a tree, equivalent to a dependency graph for recalculations. Both Garman and Harris are silent as to involving a browser. Schmuller teaches HTML code executed by a browser that has relationships between properties (p.1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schmuller into Garman and Harris in order to provide a manner of dynamically changing a web page.

Regarding dependent claims 20 and 26, Harris teaches adding dependent cells to a recalculation list (col. 7, ll. 60-65), equivalent to propagating the dirty bit. Finally Harris teaches executing cells marked for recalculation (col. 8, ll. 24-27). Harris does provide a method of mapping dependencies (col. 1, ll. 20-25), but does not explicitly disclose a dependency graph. Garman teaches using a tree, equivalent to a dependency graph for recalculations. It would have been obvious to modify Garman into Harris to enable use of tree-structure rather than the lists of Harris.

Regarding dependent claims 21 and 27, Harris discloses executing the expressions in a sequential order from least-dependent to most-dependent (col. 7, line 39 – col. 8, line 27).

Regarding dependent claim 22 and 28, though Harris is silent, Garman teaches a signal received by the input changes the value of a scalar property (col. 8, ll. 66-67), and generating a changed property notification (col. 9, ll. 1-3). Upon receive the signal the expressions are executed (col. 9, ll. 1-7). It would have been obvious to modify Garman into Harris to enable use of tree-structure rather than the lists of Harris.

Regarding independent claim 29, a propagated signal comprising the same steps as the method of claim 14 is rejected under the same rationale.

Regarding dependent claims 15 and 30, Harris discloses changing a dirty bit when the properties change (col. 5, ll. 51-64). Harris teaches adding dependent cells to a recalculation list (col. 7, ll. 60-65), equivalent to propagating the dirty bit. Finally Harris teaches recalculating cells marked for recalculation (col. 8, ll. 24-27).

Regarding dependent claims 16 and 31, Harris teaches recalculating at the completion of propagation (col. 8, ll. 16-27).

Regarding dependent claims 17 and 32, Harris teaches recalculating in an order such that dependent expressions will not be recalculated until its dependent expressions are recalculated first (col. 1, ll. 26-32). Harris does provide a method of mapping dependencies (col. 1, ll. 20-25), but does not explicitly disclose a dependency graph. Garman teaches using a tree, equivalent to a dependency graph for recalculations. A tree inherently has a plurality of nodes. Also a most-dependent node would inherently have no dependent nodes, and similarly a least dependent expression, would only be dependent on a scalars. It would have been obvious to modify Garman into Harris to enable use of tree-structure rather than the lists of Harris.

Regarding dependent claims 18 and 33, Schmuller teaches generating a user interface, and updating the interface based on the value changing (p.1)

Response to Arguments

11. Applicant's arguments filed 4/25/2003 have been fully considered but they are not persuasive.

Regarding Applicant's remarks on p. 6 regarding claim 5:

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "programming formatting

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instructions”) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The only argument that Applicant makes in regard to the invention **as claimed** is that it does not teach expressions in a mark-up language. The rejection has been modified above in view of the new limitation.

Regarding Applicant's remarks on p. 6-7, regarding claims 1-4, 19, 23, and 25:

Applicant suggests that Harris fails to recite execution in a browser. The Office agrees as noted in the rejection. This does not render the claim unobvious, as it is Schmuller that recites expressions executable in a browser. Nor does any lack of claimed features in Schmuller that are in Harris render the claims unobvious. Schmuller does teach expressions that are dynamic in relation to scalars such as “pPostionTop” on the bottom of page 1.

Applicant also asserts “one programming HTML code typically will not look to an independent spreadsheet application fro suggestions on how to modify the HTML programming.” The Office disagrees. There is no reason why a skilled artisan would not look towards different types of applications, languages, and paradigms in order to improve a product. Though HTML was originally an imperative language, it encompass many told of an event-driven language.

Regarding Applicant's remarks on p.8, regarding claims 14-18, and 26-233:

Applicant presents similar arguments, which have been addressed above.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam M Queler whose telephone number is (703) 308-5213. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R Herndon can be reached on (703) 308-5186. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5631.

AQ
July 3, 2003


HEATHER R. HERNDON
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